small fragments of differentiated tissue will reproduce the whole organism. Thus any small separated piece of the gill-basket of Clavellina (an Ascidian, and therefore by no means near the bottom of the scale of evolution) will resolve itself into a small white sphere consisting of what seem to be epithelial cells; and this sphere may then develop into a complete Clavellina.

Indeed, is not every case of regeneration or restitution of a part, as of the limb of a newt after amputation, inconsistent with this doctrine of the successive closing of doors ? And if the story of the successive closing of doors be a true description (perhaps in some instances), we remain nevertheless without explanation of any kind. Weismann's old doctrine of the unpacking of the determinants is wholly discredited; the genes and the chromosomes are reproduced unchanged in all the successive generations of cells. And if then we fall back upon some progressive differentiation, by simplification, of the material of the cytoplasm, the postulated spongio-plasmic framework becomes an embarrassment rather than an aid to understanding.

* Life is a dynamic equilibrium in a polyphasic system ' is the pronouncement of a late President of the Royal Society, Sir Gowland Hopkins. And I have no doubt that the pronouncement (if modified to run[c] Life involves', &c.) is in a sense true. But in the differentiation of a great variety of cells (which is involved in morphogenesis of any higher animal) we see how this stability, this

dynamic equilibrium, is consistent with extreme lability; such that, while one group of cells becomes muscle-tissue, another becomes a chemical factory which produces a variety of highly specific substances for the use of the organism as a whole; while another becomes a